



Our innovation is called Omnivor, is a software as a service (SaaS) product for companies (called *OmnivorInc*) and governments (called *OmnivorGov*) that communicate with each other. *OmnivorInc* enables digital foresight of the mass of material going into every ReX level, within every city, state, or region, and *OmnivorGov* is a reporting tool that tracks the total aggregation. In essence both actors (local government and companies) will digitally know the mass they could be sending to any ReX within each US state before it becomes waste in physical reality.

Using *OmnivorInc* software, a company will be prompted to fill out (a) the material composition information for each of their product lines and the quantity of production at x location (user specified in this case by Coca-Cola and Proctor & Gamble as examples). Already embedded within the software are other LCA, embedded energy and other economic and EOL infrastructure parameters (b) as supplied by the LCA and TEA studies done by National Labs. Once the algorithm runs (c) on the company specific product and packaging information that is fed into the software, the company will immediately understand their baseline knowledge of how much of their materials, product and packaging is destined for which ReX chain in every US city/county they sell their products in as shown in (d). This can change over time as they make improvements to product design for EOL and EOL collection etc. Baseline information shared to *OmnivorGov* every week or month so that the government can track this information to as shown in (e). Government will get aggregated material and ReX data from all companies using Omnivor. (f) Currently beyond the scope of this project but the ability to now recoup that mass that could go into the ReX level. This would change the way extended producer responsibility (EPR) is done as materials now have data as a currency to get rerouted back, allowing for eco-modulation. The company can reward or penalized by government being privy this information. If the company can show they have collected the mass they could have in (f), then you get (g) – a local circular economy. This is a mass balance model where inputs must equal outputs.